

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KAROLEEN B. ALEXANDER

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Appeal 2007-2693  
Application 10/757,116  
Technology Center 3600

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DECIDED: November 30, 2007

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Before TONI R. SCHEINER, DEMETRA J. MILLS, and NANCY J. LINCK,  
*Administrative Patent Judges.*

SCHEINER, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1-21.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

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<sup>1</sup> Claims 22-40 are also pending, but have been withdrawn from consideration.

STATEMENT OF THE CASE

Claim 1, the only independent claim, is representative of the subject matter on appeal:

1. A structure for use as a tree well skirt or sidewalk, comprising:  
a base layer of rubber and a first binder; and;  
a wear layer of ethylene propylene diene monomer (EPDM) and a second binder on top of the base layer.

The rejections to be reviewed on appeal are as follows:

- The rejection of claim 1 under 35 U.S.C. § 103(a), as unpatentable over Byrne<sup>2</sup> and Tsao.<sup>3</sup>
- The rejection of claims 2, 3, and 6-14 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, and Farley.<sup>4</sup>
- The rejection of claims 4 and 5 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, Farley, and Stella.<sup>5</sup>
- The rejection of claims 15-18 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, and Stella.
- The rejection of claims 19-21 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, and Schuurink.<sup>6</sup>

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<sup>2</sup> U.S. Patent 5,396,731 to Byrne, issued March 14, 1995.

<sup>3</sup> U.S. Patent 5,678,353 to Tsao et al., issued October 21, 1997.

<sup>4</sup> U.S. Patent 5,730,773 to Farley, issued March 24, 1998.

<sup>5</sup> U.S. Patent 4,882,386 to Stella, issued November 21, 1989.

<sup>6</sup> U.S. Patent 4,205,102 to Schuurink et al., issued May 27, 1980.

## DISCUSSION

There are five separate rejections of the claims, but the Examiner's proposed combination of the teachings of Byrne and Tsao, as applied to claim 1, forms the basis of each rejection. We will focus our attention accordingly.

### *The Invention of Claim 1*

Claim 1, the broadest claim, is directed to a "structure for use as a tree well skirt or sidewalk" comprising two layers: a first layer comprising rubber and a first binder, and a second layer comprising ethylene propylene diene monomer (EPDM) and a second binder.

"[T]he PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification." *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

We find that the term "binder" is not expressly defined in the Specification. However, one ordinary meaning of the term "binder" is "something (as tar or cement) that produces or promotes cohesion in loosely assembled substances" (Merriam-Webster Online<sup>7</sup>), and this meaning of the term is consistent with the way it is used in the Specification. For example, the Specification teaches that the second layer may be made of granular EPDM and an isocyanate polyurethane binder (Spec. ¶ 43), mixed "to a

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<sup>7</sup> Available at <http://www.merriam-webster.com>.

consistent slurry . . . poured in place . . . and trowelled . . . in the same manner that a concrete sidewalk surface is . . . trowelled to obtain a smooth surface” (*id.* at ¶ 47).

We further find that the claim does not require any particular physical form for the rubber of the first layer, or for the EPDM of the second layer, even though there are numerous references in the Specification to rubber “granules,” “peelings,” and “buffings,” and EPDM “in granular form” (*see e.g.*, Spec. ¶¶ 38 and 43). “[P]articular embodiments . . . in the specification will not generally be read into the claims.” *Constant v. Advanced Micro-Devices*, 848 F.2d 1560, 1571 (Fed. Cir. 1988).

Thus, we find that one of ordinary skill in the art would interpret claim 1 as requiring:

- a first layer comprising at least two substances: (1) some form of rubber, and (2) a binder that produces cohesion in loosely assembled substances; and
- a second layer comprising two substances: (1) some form of EPDM, and (2) a binder that produces cohesion in loosely assembled substances.

#### *The Prior Art*

Byrne describes “a mulch system having a natural mulching appearance and preventing weed and grass growth around trees” made from “rubber . . . ground from used automobile tires . . . combined with a curable binder to form a matrix defining a moisture and air porous, weed and grass-growth preventive pad” (Byrne, col. 2, ll. 3-18). The pad may have “an internal mesh layer of fiberglass, nylon, polyethylene, or the like disposed centrally in the pad for strength” (*id.* at col. 5, ll. 46-48). Thus, Byrne

describes the first layer required by claim 1, but does not describe the second layer comprising EPDM and a binder.

Tsao describes a “grass guard for objects such as sprinkler heads, fire hydrants, . . . etc. . . . to minimize vegetation growth around the object” (Tsao, col. 1, ll. 6-9). The grass guard has “a two layer construction with the top layer being a thin, weaved flexible plastic sheet simulating normal grass. The bottom layer is made of a heavy grit or powder, for example sand, bonded into a uniform, plastically compliant body with a polymer which simultaneously forms a tight bond with the top layer” (*id.* at col. 2, ll. 31-36). Polymeric materials which can be “blended with inorganic grits” to form the “uniform, plastically compliant body” of the bottom layer include terpolymers of ethylene-propylene-diene monomers (EPDM) (*id.* at col. 4, ll. 33-58). The polymeric material, “in one of the following liquid forms, either a solution, or latex or emulsion or reactive syrup[,] . . . is agitated while inorganic grits are being added. The resulting slurry is then cast onto a pancake shaped mold with a plastic turf placed therein” (*id.* at col. 5, ll. 62-66).

#### *Analysis*

The Examiner contends that “it would have been obvious to one of ordinary skill in the art to take the device of Byrne and add the wear layer made of EPDM of Tsao . . . , so as to allow for the device to be durable for outdoor use” (Answer 3).

Appellant notes that Byrne “provides a mulch pad of rubber granules” (Reply Br. 5), while Tsao is directed to a two-layer grass guard in which “EPDM may be utilized as the polymeric binder in the bottom layer” (Reply

Br. 5). Thus, Appellant contends, “if they were combined according to the teaching or motivation found in the references, the combination would be a tree skirt with a . . . layer having a mixture of sand and an EPDM binder, [and] a . . . layer of rubber granules” (*id.* at 6).

We agree with Appellant’s contention. Although the language of claim 1 is extremely broad, and does not exclude using EPDM as a binder, or require the EPDM to be in solid form, the broadest reasonable interpretation of the claim is that the second layer requires at least two substances - some form of EPDM, and a binder - and those two substances are somehow different.

Tsao teaches that EPDM in liquid form can be mixed with loose inorganic grit or sand, and the mixture can then be cured to form a uniform, consolidated layer (Tsao, col. 4, ll. 46-58, and col. 5, ll. 62-66). Quite simply, Tsao’s discrete disclosure of an EPDM binder is not a disclosure of a layer comprising EPDM *and* a binder.

It is the Examiner’s burden to establish *prima facie* obviousness. *See In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993). Obviousness requires a suggestion of all the elements in a claim (*CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003)) and “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). Here, we find that the Examiner has not identified all the elements of claim 1, nor provided a reason that would have prompted the skilled worker to have arranged them in the manner necessary to reach the claimed invention.

The remaining rejections of the dependent claims are all premised on the Examiner's proposed combination of the teachings of Byrne and Tsao. The additional references relied on by the Examiner are cited to address particular limitations recited in the dependent claims, but do not cure the underlying deficiency of the proposed combination of Byrne and Tsao.

Accordingly, the rejections of claim 1-21 under 35 U.S.C. § 103(a) are reversed.

#### SUMMARY

The Examiner's rejection of claim 1 under 35 U.S.C. § 103(a) as unpatentable over Byrne and Tsao is reversed.

The rejection of claims 2, 3, and 6-14 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, and Farley is reversed.

The rejection of claims 4 and 5 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, Farley, and Stella is reversed.

The rejection of claims 15-18 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, and Stella is reversed.

The rejection of claims 19-21 under 35 U.S.C. § 103(a) as unpatentable over Byrne, Tsao, and Schuurink is reversed.

#### REVERSED

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